

CLAIMS

1. A hydrogen absorbing alloy having a CaCu_5 type crystal structure in its principal phase, comprising La in the range of 24 to 33% by weight in the alloy, and Mg or Ca in the range of 0.1 to 1.0% by weight in the alloy.

2. A hydrogen absorbing alloy according to claim 1, further comprising 9% by weight or less of Co in the alloy.

3. A hydrogen absorbing alloy according to claim 1, further comprising 6% by weight or less of Co in the alloy.

4. A hydrogen absorbing alloy according to claim 1, wherein the Co content is 6 to 9% by weight, and the atomic ratio B/A is 5.0 to 5.25, where A represents a rare earth element including La, and B represents a rare earth element, transition metal or Al.

5. A hydrogen absorbing alloy according to claim 1, further comprising one or more selected from the group consisting of Ti, Zr and V.

6. A hydrogen absorbing alloy having a CaCu_5 type crystal structure in its principal phase, comprising Mg and having a-axis length of 4.990 to 5.050 Å and c-axis length of 4.030 to 4.070 Å for the lattice constants in the CaCu_5 type crystal structure.

7. A hydrogen absorbing alloy according to any one of claims 1 to 4 having a-axis length of 4.990 to 5.050 Å and

c-axis length of 4.030 to 4.070 Å for the lattice constants in the CaCu₂ type crystal structure.

8. A method for manufacturing a hydrogen absorbing alloy having a CaCu₂ type crystal structure in its principal phase, characterized in that a Mg-supply material is added to dissolution of component elements for hydrogen absorbing alloy in an amount of 0.1 to 1.0% by weight in an entire hydrogen absorbing alloy.

9. A method for manufacturing a hydrogen absorbing alloy according to claim 8, characterized in that at least Ni and Co are melted in a melting vessel, and then the Mg-supply material is added to the melting vessel.

10. A method for manufacturing a hydrogen absorbing alloy according to claim 8 or 9, characterized in the Mg-supply material is selected from metallic Mg and Mg alloy with melting point of 650°C or higher.

11. A nickel-metal hydride rechargeable battery using the hydrogen absorbing alloy of any one of claims 1 to 7 for an electrode thereof.